

The Subgenus *Cyphomannia* Weber 1938 of *Cyphomyrmex* Mayr 1862, Reinstated, and Systematic Notes (Hymenoptera: Formicidae)

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The subgenus *Cyphomannia* was created for Bolivian ants of the *Cyphomyrmex* complex (Weber 1938). In the description and figures of the type species *laevigatus* I showed them to differ markedly from known species, particularly in thoracic and petiolar characters. Unfortunately types or identified material were not seen by Kempf (1962) when he synonymized *Cyphomannia* or when he prepared his revision of the *strigatus* group (1964). His conclusion that *Cyphomannia laevigatus* was part of the *rimosus* complex was based on the assumption that it was a smooth *rimosus*. Differences of subgeneric rank are the complete lack of thoracic tubercles, the mesonotal area flat dorsally and with angular margins, the smoothly declivous epinotum without angles or tubercles, and both the petiole and postpetiole being flat dorsally and without tubercles. The femora and tibiae are rectangular in section and there is an exerted sting, the latter being a character of general biological rather than systematic interest.

In the group of *rimosus* Dr. Kempf includes a heterogeneous list of species based on head characters and on the possession of two or no median pronotal tubercles. A species like *longiscapus*, however, can hardly fit here better than in the alternative group of *strigatus*. The outstanding character of *rimosus* is biological rather than morphological—it cultures a yeast rather than a mycelium.

Specimens, including types, were taken to Europe under a National Science Foundation grant in 1957 and compared with Emery, Forel, and Santschi type material. The following notes may assist in future revisionary work of this genus of variable characters.

Nothing in the Emery, Forel, or Santschi collections was seen that I considered to be in the same subgenus with *laevigatus* although *lectus* Forel was noted to be somewhat transitional. The side view of the thorax of *lectus* is shown by Dr. Kempf (1964) to be transitional in its smoothness.

CYPHOMYRMEX (CYPHOMYRMEX) Mayr 1862

- C. bicornis** Forel. The Bolivian *vorticis* Weber is close but specifically distinct.
- C. bigibbosus** Emery. The Emery collection had one pin marked Typus, Pará 166, not seen by Dr. Kempf. The worker thorax, excluding neck was 0.835 mm or with neck 0.89 mm. The postpetiolar node is 0.285 mm long \times 0.248 mm wide. A cotype of the subspecies **tumulus** Weber had a thorax excluding neck of 0.99 mm and, when directly compared, appeared to be subspecifically distinct. A cotype of **petiolatus** Weber differed from the Emery type in having much longer occipital angles and less crenulate frontal lobes. A topotype of **faunulus** Wheeler had the same kind of postpetiolar node as the Emery species but the occipital angles were much more acute and the median pronotal tubercle less marked. It is entirely possible that the species shows considerable variability but at present the taxonomy appears to be:
- C. bigibbosus** Emery
- C. bigibbosus** Emery subspecies **tumulus** Weber, reinstated
- C. bigibbosus** Emery subspecies **petiolatus** Weber, reinstated
- C. faunulus** Wheeler (Kempf emend.)
- C. colombianus** Weber. Near **strigatus** Mayr but specifically distinct. As originally noted, this is close to *costatus*, and Dr. Kempf believes it to be the same.
- C. daguerrei** Santschi. Santschi types seen. The ants are close to **rimosus** but specifically distinct. The thorax is much as in **rimosus** but there are no occipital tubercles.
- C. flavidus** Pergande. Mexican material in the Emery collection shows this to be a species related to **rimosus**. The thorax bears a flat oval area instead of tubercles.

- C. foxi** E. André. Jamaica material in the Emery collection shows this species to be highly distinctive.
- C. morschi** Emery. Types seen. A very smooth species with low thoracic tubercles, the occipital corners evenly rounded; an unusual character is the humeral angles directed forward as sharp, flat right-angles. It resembles none of my forms. Dr. Kempf has synonymized **personatus** Santschi with **morschi**, a useful step. This latter type also was seen.
- C. olitor** Forel. Types seen. A good species related to **rimosus**.
- C. lectus** Forel. Type seen. Quite different from the **rimosus** group.
- C. rimosus** subsp. **pencosensis** Forel. Type seen. A good subspecies marked by epinotal tubercles, a pair of anterior median pronotal tubercles, and low, median tubercles. The thorax is 0.934 mm long and the postpetiole 0.211 mm long by 0.422 mm wide.
- C. strigatus** Mayr. Material in the Santschi collection placed here was labelled "Types" and was of all castes. While probably not type material, it did come from Santa Catarina, Brasil (Moeller) and may well be **strigatus**. The Colombian **colombianus** Weber is related to this and **costatus** Mann is quite different.

LITERATURE CITED

- KEMPF, W. W. 1962. Miscellaneous studies on neotropical ants (Hym. Formicidae). *Studia Ent.* 5: 29-34 (Rio de Janeiro).
- . 1964. A revision of the neotropical ants of the genus *Cyphomyrmex* Mayr. Part I. Group of *strigatus* Mayr (Hym. Formicidae), *loc. cit.* 7: 1-44.
- WEBER, N. A. 1938. The biology of the fungus-growing ants. Part IV. Additional new forms. *Rev. Ent.* 9: 183-191 (Rio de Janeiro).
- . 1940. The biology of the fungus-growing ants. Part VI. Key to *Cyphomyrmex*, new Attini and a new guest ant. *Loc. cit.* 11: 406-427.
- . 1958. Some attine synonyms and types. *Proc. Ent. Soc. Wash.* 60: 259-261.